

AIM-I OLIGONUCLEOTIDES

- Oligonucleotide primers (SEQ ID NOS:4-9) used during Long Distance Inverse PCR
- Oligo's bind to regions of AIM-I (Mung bean ACC Synthase)

NSE-1 to NSE-6 correspond to SEQ ID NOS:4-9, respectively.

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NSE-1

5' -GCGGAT↓CCATCTTGGACAACAAGGGAGTT - 3'
29'omer
Tm = 68

NSE-2

5' -TAGGATC↓CAGAAAGACACTGAGAACCGTGG- 3'
30'omer
Tm = 70

NSE-3

5' -ACGGATCC↓GGTGTATGTGGTTAGAGTGTG- 3'
29'omer
Tm = 62

NSE-4

5' -CAGGATC↓CAGACATAGAGTGTGACCGCAA- 3'
29'omer
Tm = 66

NSE-5

5' -ATCGATCATATGAGCTCTAGACCCGGGCTGCAGGATCC↓GGTGTATGTGGTTAGAGTGTG- 3'
59'omer
Tm = 62

note: NSE-5 is identical to NSE-3 except different restriction enzyme sites have been incorporated
(ie. 5'-Cla I, Nde I, Sac I, Xba I, Sma I, Pst I & Barn HI-3')

NSE-6

5' -CCGCGGAGATCTATCGATCTCGAGAATTCAAGCTT↓CAGACATAGAGTGTGACCGCAA-3'
57'omer
Tm = 66

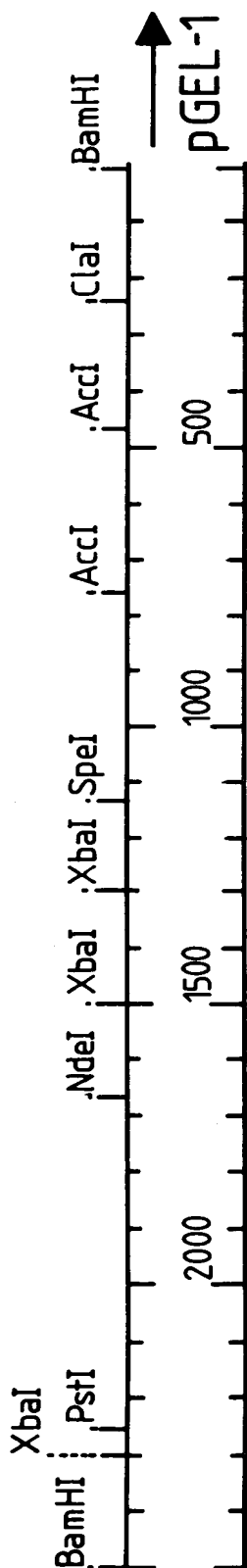
note: NSE-6 is identical to NSE-4 except different restriction enzyme sites have been incorporated
(ie. 5'-Sac II, Bgi II, Cla I, Xho I, Eco RI, & Hind III-3')

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(2,483bp)

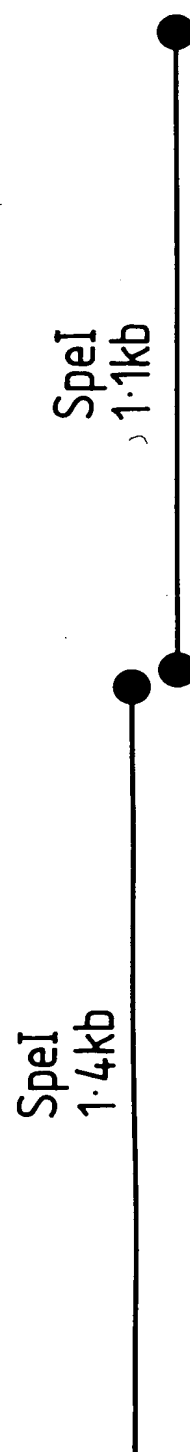
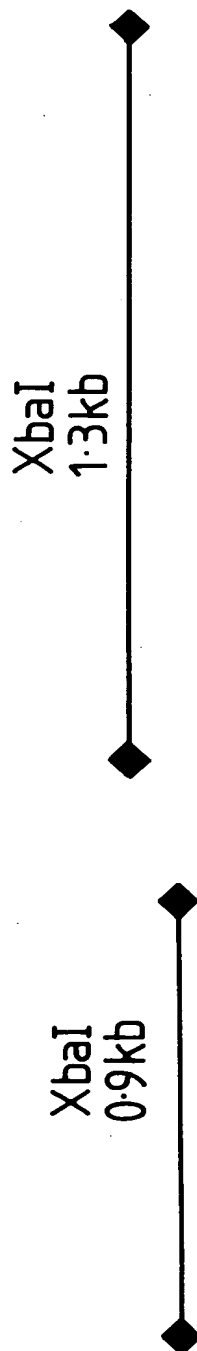


FIGURE 2

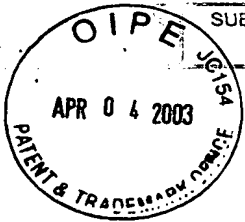


FIG. SUBCLASS

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pGEL-1 2.5Kb promoter sequencing strategy:

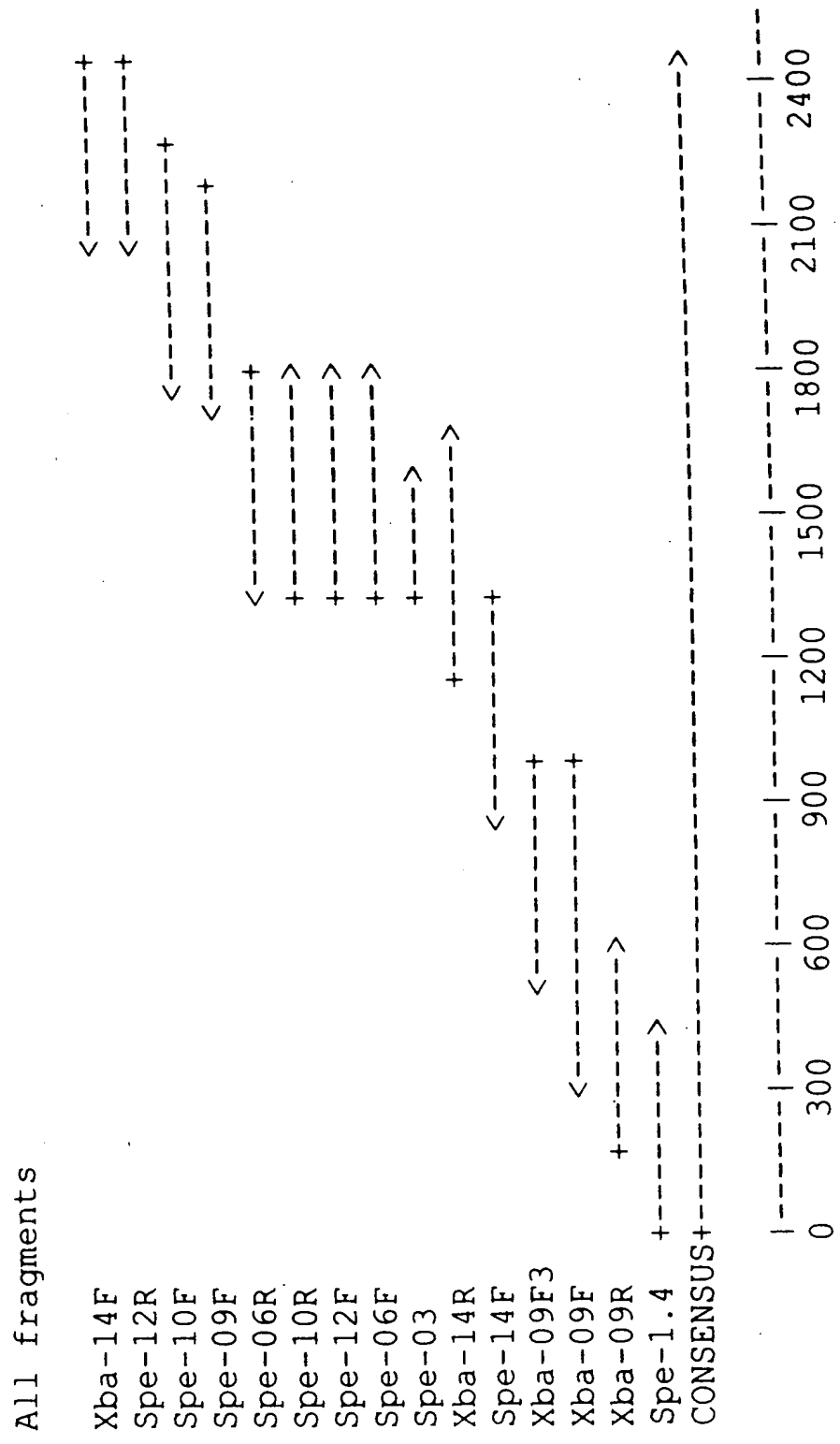
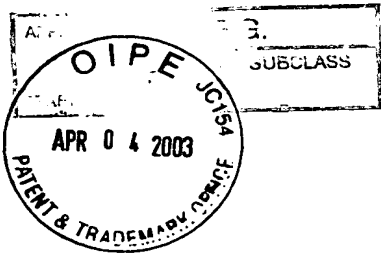


FIGURE 3



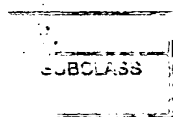
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FIGURE 4(i)

FIGURE 4(ii)

Figure 4 corresponds to SEQ ID NO:3

FIGURE 4



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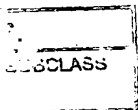
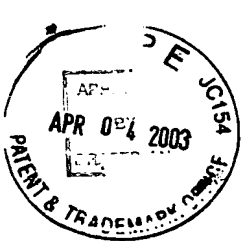
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pGEL-1 2.5Kb Promoter Fragment

Length: 2470

1 TTACAGATAC ACAGAATCAG ACGACACATC TACTTTAATA ACAGAAAAAT
51 AATAAGTGTC GGAGATTATG GTACGACAAG ATGAAATGTT TTTATATGGT
101 TGAGATTATT TTGGTCTGTT GTTGGAAGTT TCACGAATCA TGATTTTGAT
151 TTTACGTATT AAAAAATGAA AAGTTGAATC ATGCATTTTA TCTAGAAGCT
201 GGGAACTGAA CCAAAAAAAT AGCCAGTTGA ACAACTGCAG TATTTGTAGG
251 CGTATTCATT TCTCCTTTCC TACAATAATC CTTGGTTGCT CTTTATCGGA
301 AAAAAACCAA AAGCAATAGC TACTCTGTAA GGTCCCTCGAT TGCCGACAAG
351 AACATCACAT GCGTGCTGTC GAAGAACACA TAATTTTGAG GTTGAAGCTC
401 ACGTGCGAGT TTTGCATATT TTTAGGTTAT GTGTACACGT ATGGAGTGAG
451 TTCCGCGTAT ATAGTGTAGG TAGTTGAGTG GCTGAGTAGC GAGTGAATCA
501 GGTAACACTA TCTTTTCAAG CCACCTAATT AAGGGATTTA ATGTTTCATGC
551 AACTGTTCTT CGCTAACTAA GGCCCCACTT ACCTTTATAA TATTCTCTCT
601 AACTCCGGGC TTTTGGTAAG TACAACTTTT CTACTCTTAT TTAATGGAGG
651 GATTATTTTT TCCATATACC AATTAATTTA TTTTTTAATT TATGCATTTT
701 GATCTTATAT TAAACAATT ATGGTATGGA TTAAGTCGTA TATCGGTGAC
751 AATTGAAGTT TTCCTCAAGT TTAGCCATTT TTATGAAATT AAACCTAATC
801 ACTACTATTA GGTA AATTCA TATGTATCAT TAACAATTTC AATGTGAGTT
851 CAATTTTACC CAAGATTTGA AAGTTGTTGT CAACTTCTGT TAACTAAAGT
901 TGTATTATAA GGTTGACGAC TTTAACCTAA ATCTATTTTG AATTGAAGGG
951 GTTGATGACT TCAGCTTTAA AATAATTCAA CTAAAGTTCT AGACTACATT
1001 GGAGATTTTA GTGTTCAATA AATTTTAGAA AAAGGCTGAG TTAAAGTTAT
1051 GAAAAAGATT GGTGACTATT CAATTAATTA GTTGTGAATT GATGACAAAT
1101 ATTTTCATGAG CATAACCAAT CAGAGAAATA CCACCTCGAC CGACTACAAC
1151 AATCTCAATG TTAATTAATG AAGCATTGTA GTATAAGGAG TCTAGAATAA
1201 ATTTCTTAAA TATTAGAGGA AAACCTATTTT TAAAAAATTA CAAGAAAAGT
1251 TTGATCTATA ACCTCTTTAA ACTTTAAATT ATCTAACAAT TTTCTTATGA

FIGURE 4(i)



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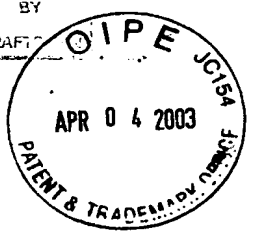
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1301 CTCACATTGT GTTGATAGGG TGATTTTGTC AAAATATATG TCTATTTTAT
1351 ACTAGTATGA TTTGTCTGCG AATTATATAT AGTATTAAGT TGGAGAAATG
1401 ATTGCCTAAT AAGTTATAAA AAAGGAGAAA ATATTTATTC ATAAAAA
1451 TACACTTAAA TAAGTAACAA TAATAAAAAA CATTATATAA GAGATTAAGA
1501 TAATTTAATA AGTATTGAAT GTAGAATAAT TTTTATTTAT AAATTTGAAC
1551 TAAAATATTC AAATAATATT CAAAGTAAAT AATAGATATA ATTCATCATT
1601 CAATACGAGT AATTCAATCT ATTATAATCC ATATATTAGA TAAATATACA
1651 AATATTTGTT AAATTTTACA TTATTATATT ACTAAATATA TATTAATTTT
1701 CTTTGAATAT CTTTTATACA AGTAGGTAGA CTAGAAGAAT TATCTTATCT
1751 CCCGTATATT TGTAGATGTT AAATGTAACG GGCTTAGACT GATGTTTTTG
1801 TATTATATTA TTTATAAATC CATTAGAGAT TTAAGTTAAT GTCTCTCTTT
1851 GATTTTAAAC ATGGTCTAAA AATTAGGTTT AATCATTGCG TCCTCAATGA
1901 ACCCATGCTA TATGTTTTAA AGTTTTTTGT TTTTGGACAA TGTTTTTTAT
1951 TTCTGAGATT GCTCTTAGGA TTGAAATTAT GTTTGATACT AGAAAACGAA
2001 GAAGTAGAGA GTAGTGATA CACGTGTAAA AAATAATAGT TGTGGGAACT
2051 TAAGTTGGAT TTGAATACTA GGACGAGGCT GGAAGGGTTT CCACTAAGTT
2101 GACAAAAATT ATTACAAGTG GCAACTAGCT AGGTCTCACA AAGTATTACT
2151 AATTAATAGT GGGTCTGTCT GCATACCAAC TCTTGCCTAA TTTTCAAACA
2201 CCGCATTCTC TCTTCTTCTC TCCTTCTTCC TCTGGAAACT TCATCGATGT
2251 GGACTTCTGT CTCTCAAAAG TCAAGCTCAA TTTATCCAAT GCATTATAAA
2301 TACACACTCT CCCTCCCTTC TATTCTTCAT TGCATCACAT TTCCTCTATA
2351 AATTACTCAC ACCTTATTCC TAACTTCATT TCAACATCCT CTCTCCCACT
2401 TACTTCGATT TCATCAATTC CAATAAACTC AACACACTTT TTTACACTCC
2451 AACTCTAAC CACATACACC

FIGURE 4(ii)

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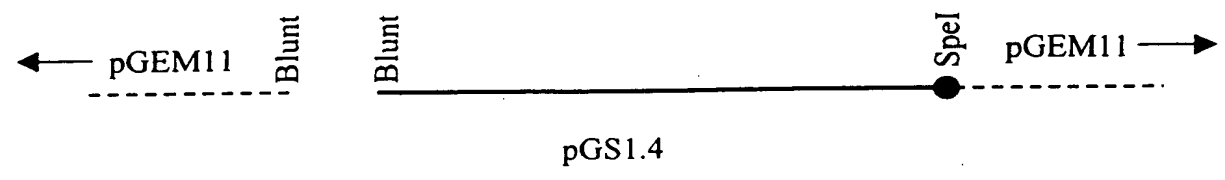
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Reconstruction of 2.5 kb **pGEL-1** promoter

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(a)

1. Cut HindIII and blunt end pGS1.4

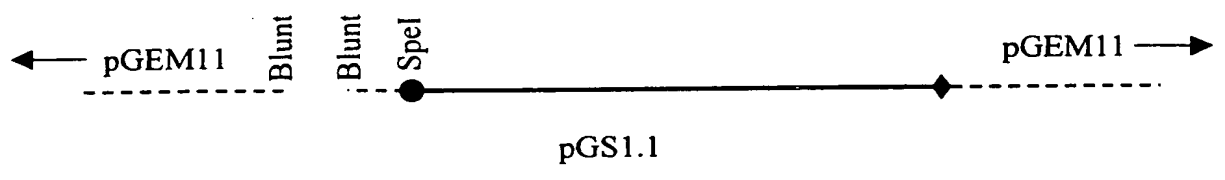


2. Cut SpeI

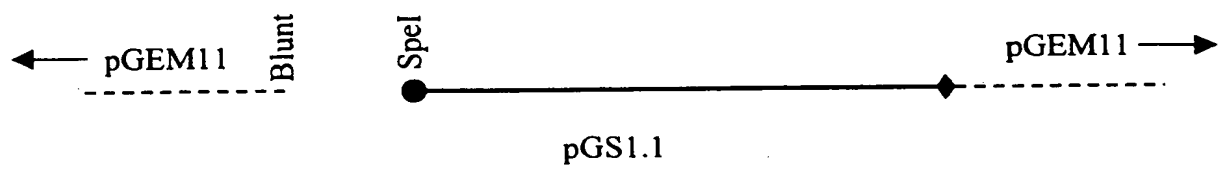


(b)

1. Cut SalI and blunt end pGS1.1



2. Digest with SpeI



(c) Ligate (a) into (b)

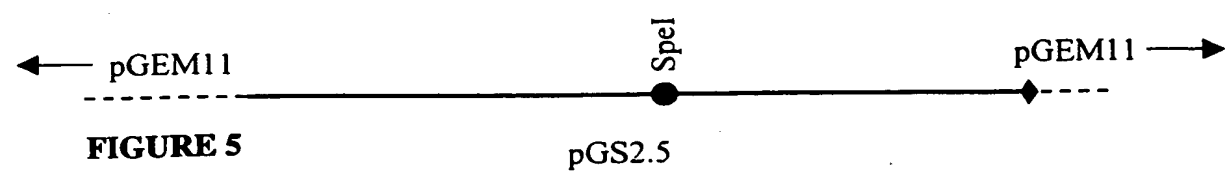
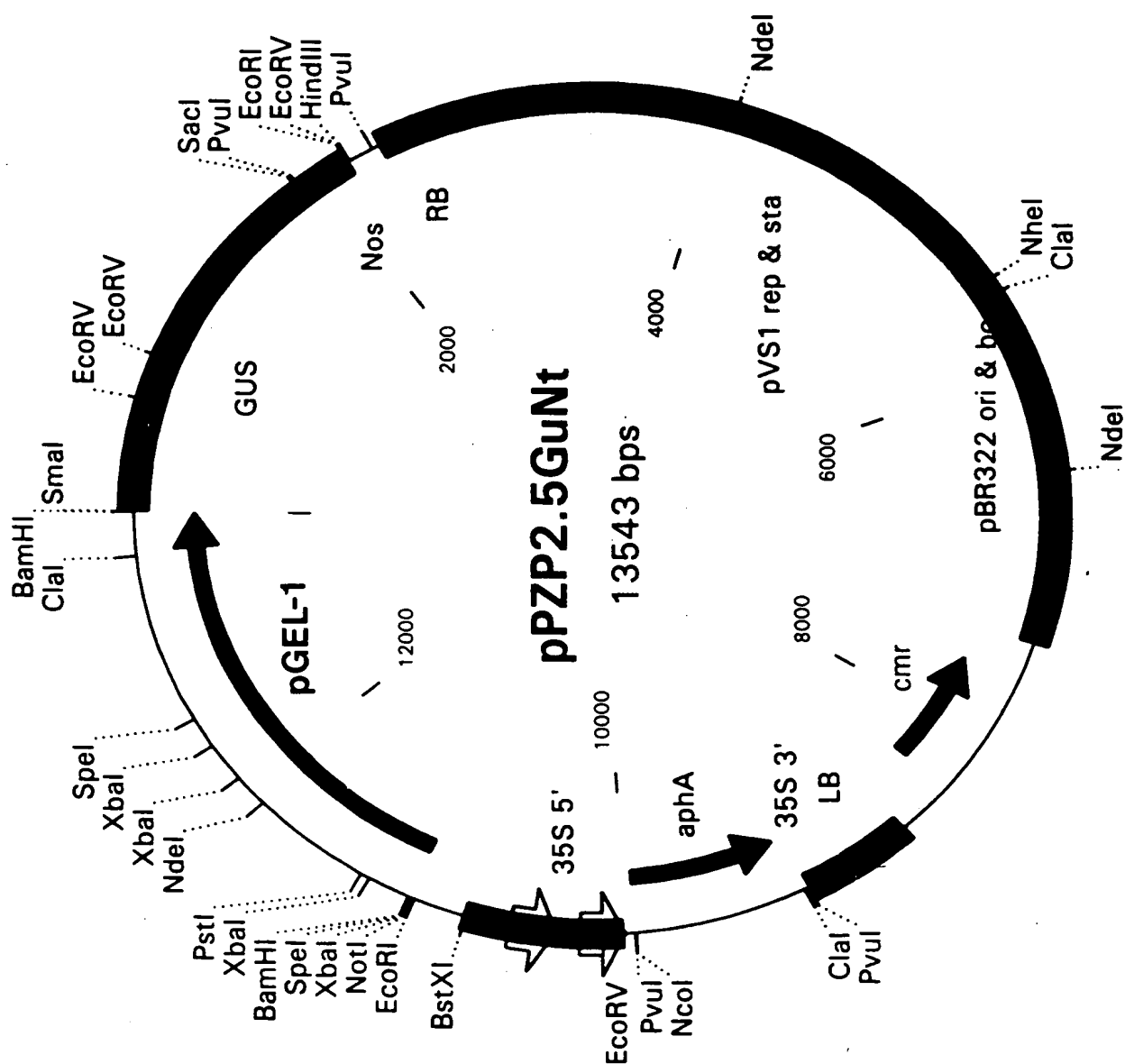
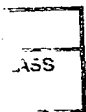
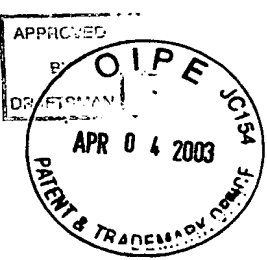


FIGURE 5

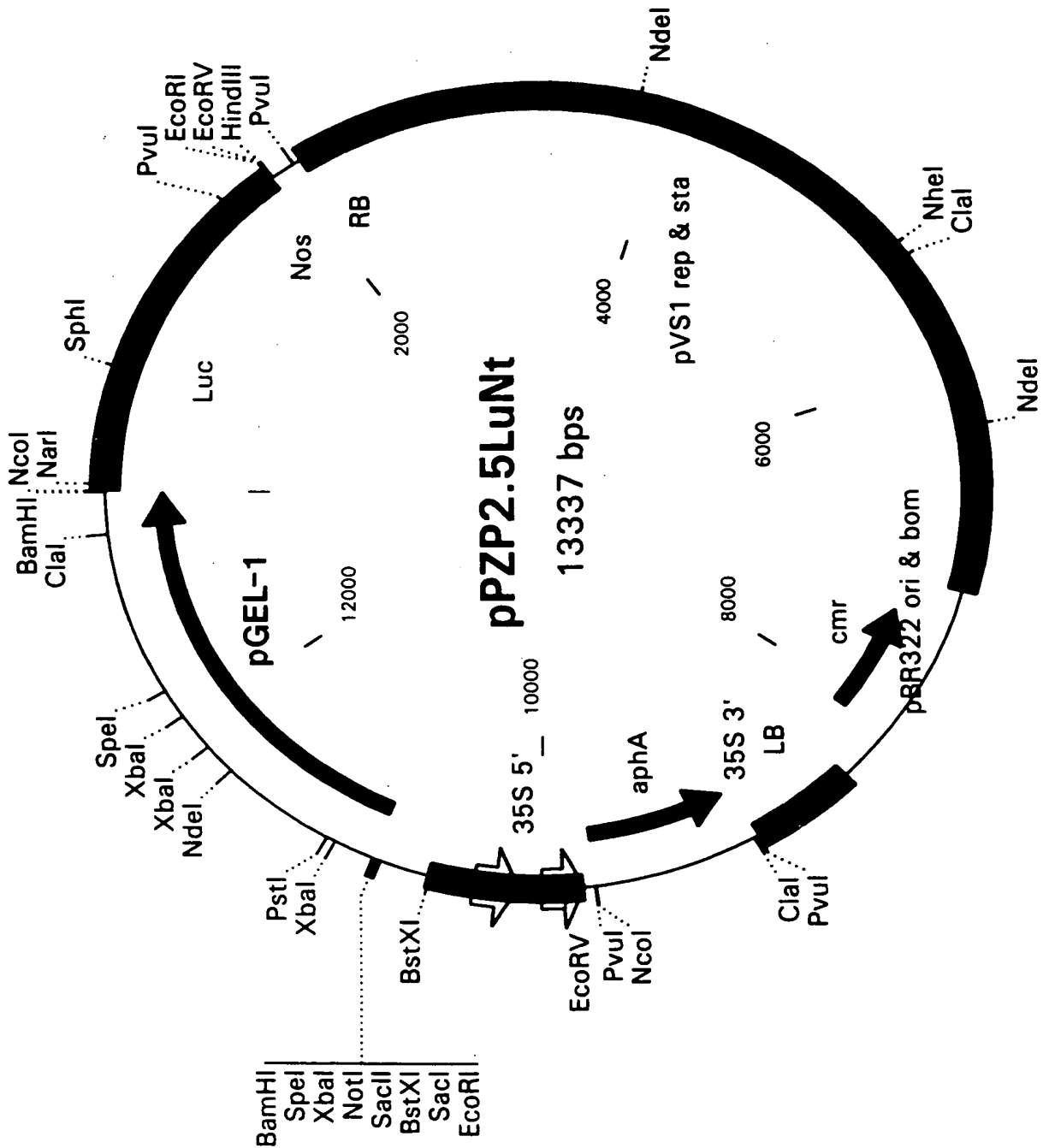


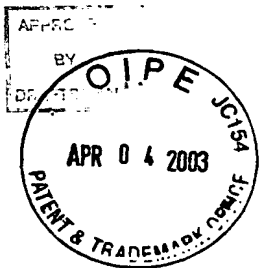


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FIGURE 6A(ii)





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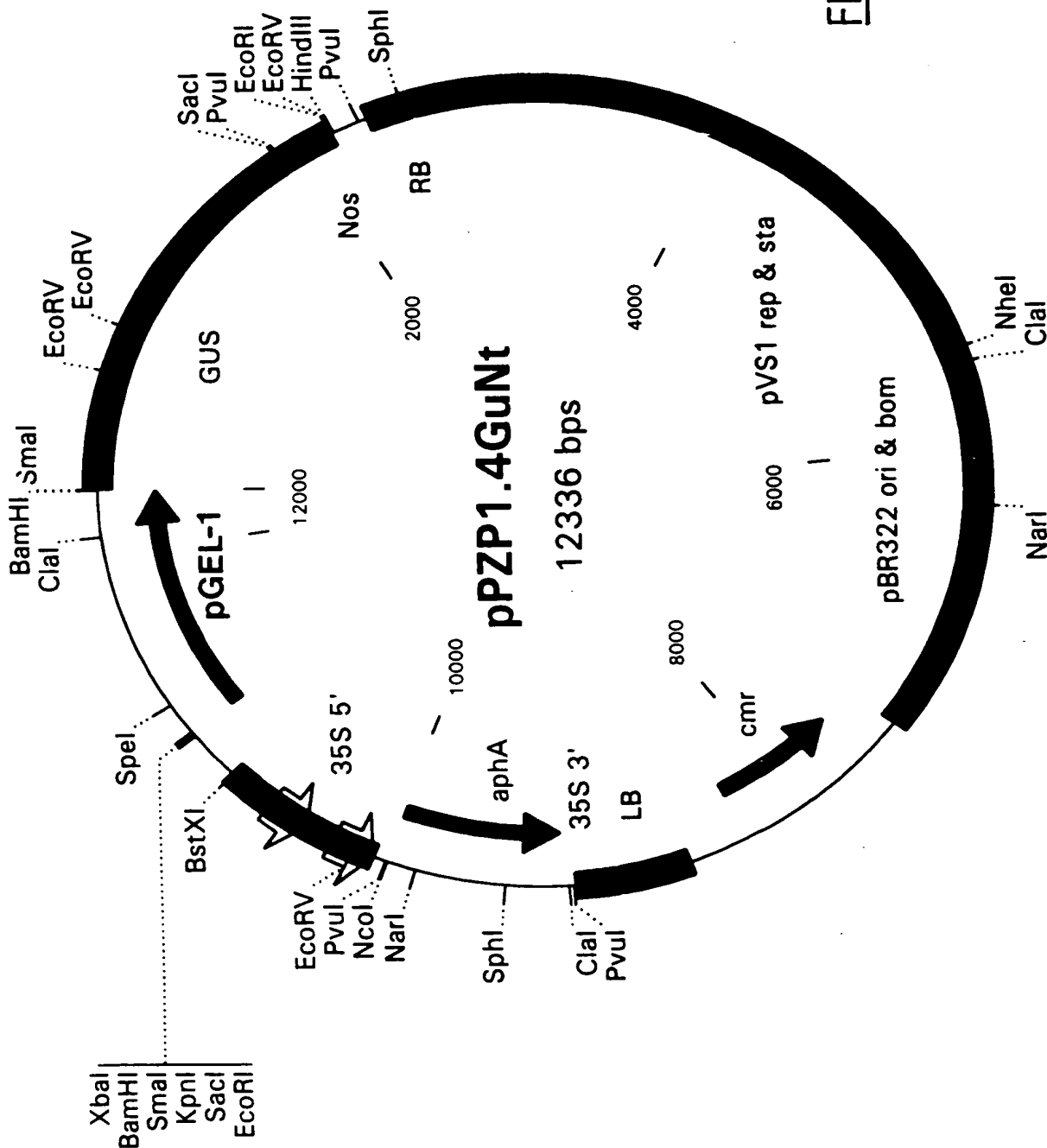
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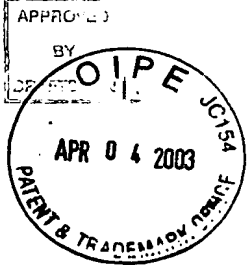
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FIGURE 6A(iii)





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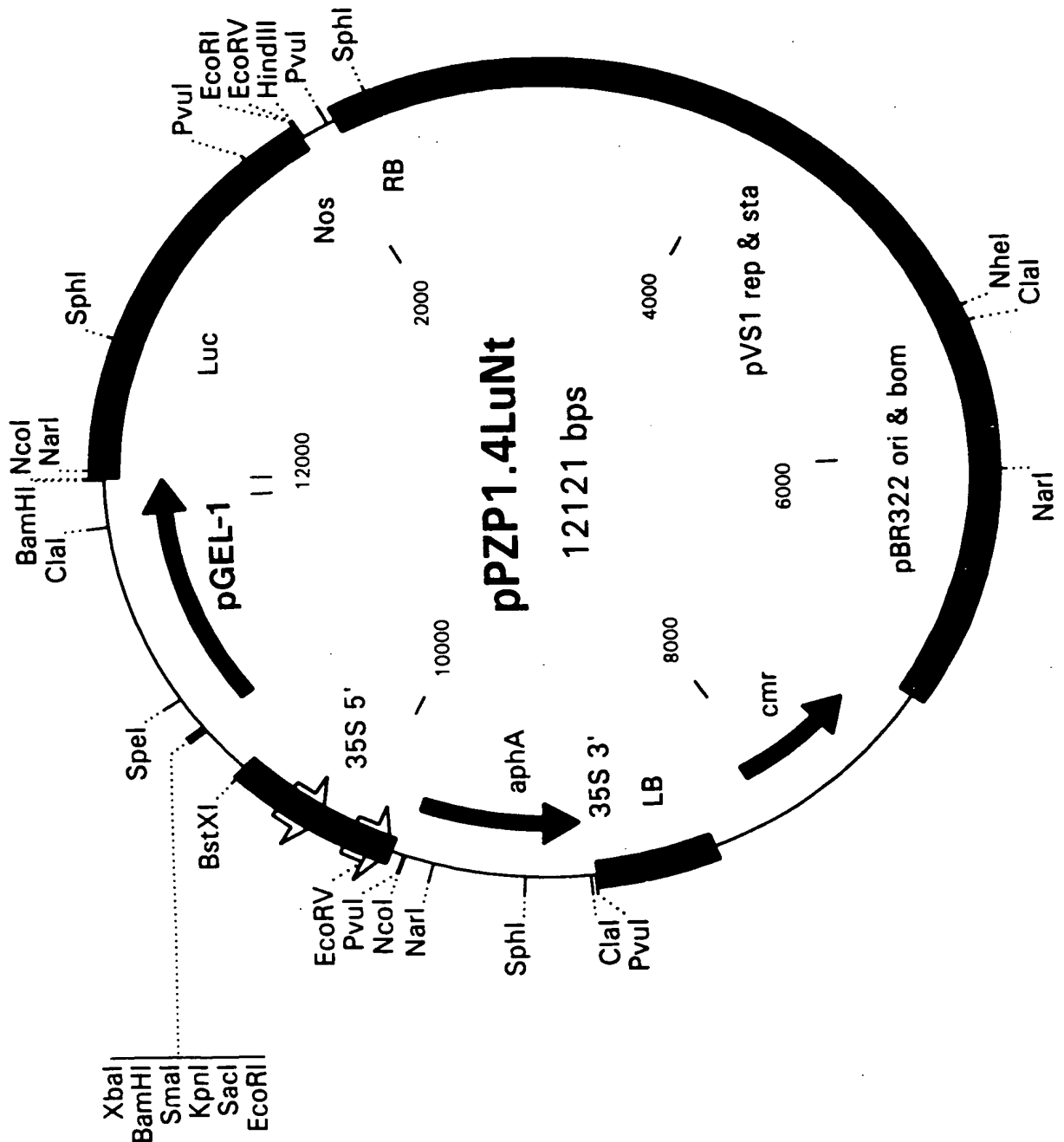
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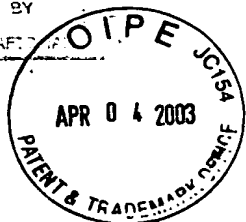
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FIGURE 6A(iv)



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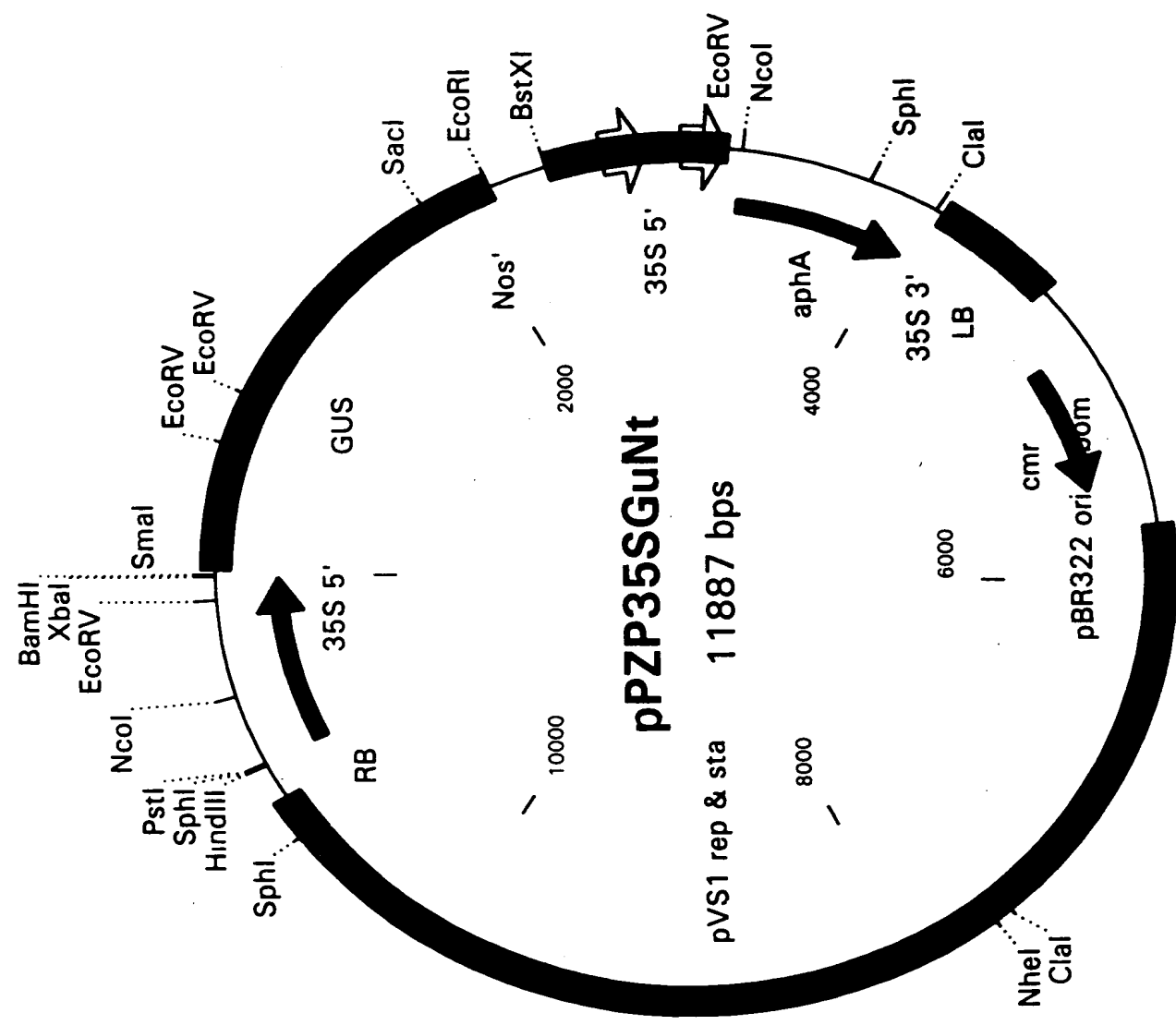
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FIGURE 6A(v)



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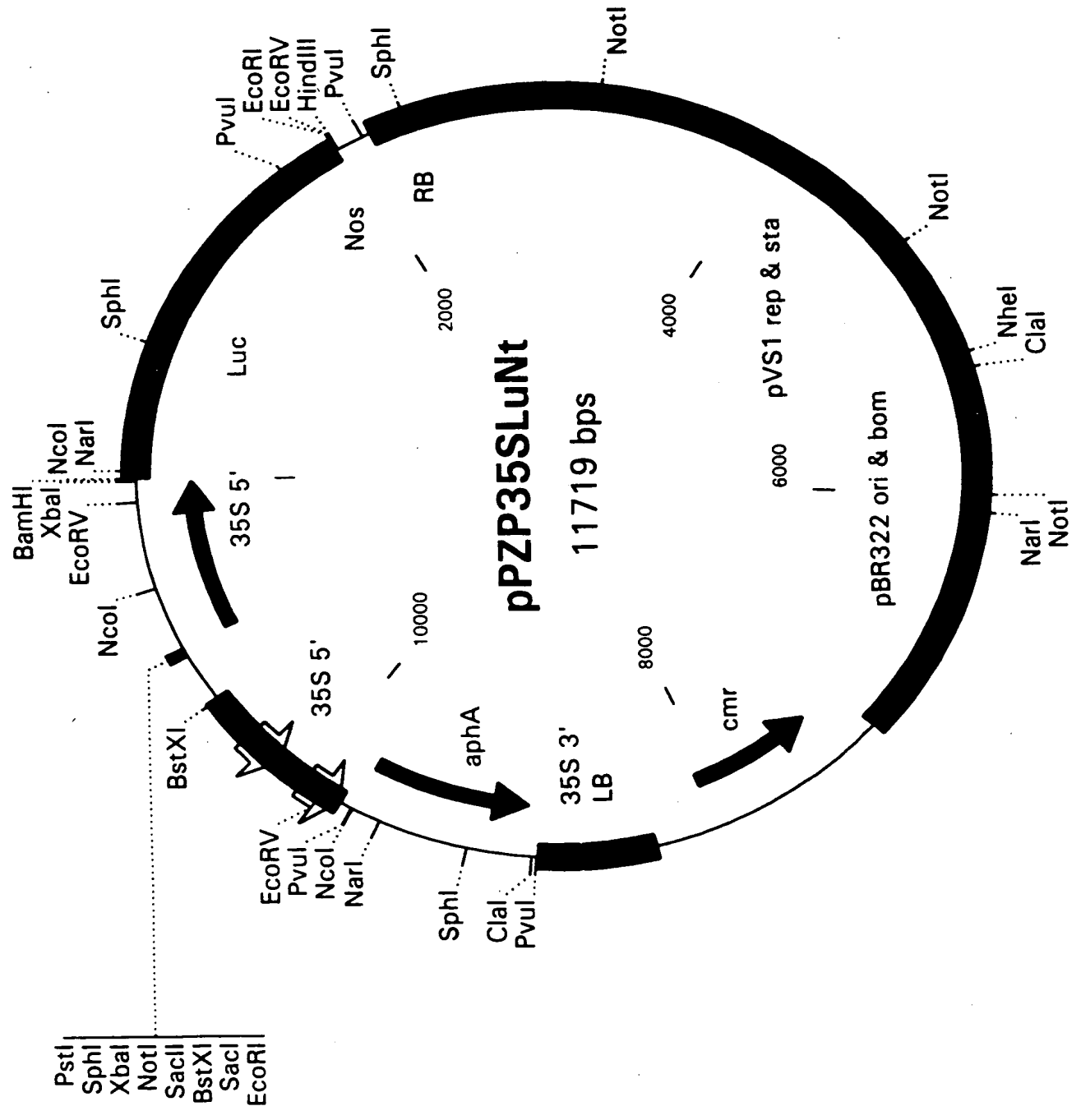
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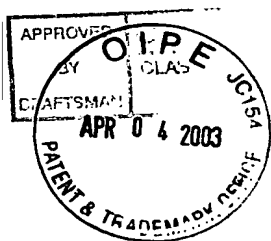
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FIGURE 6A(vi)





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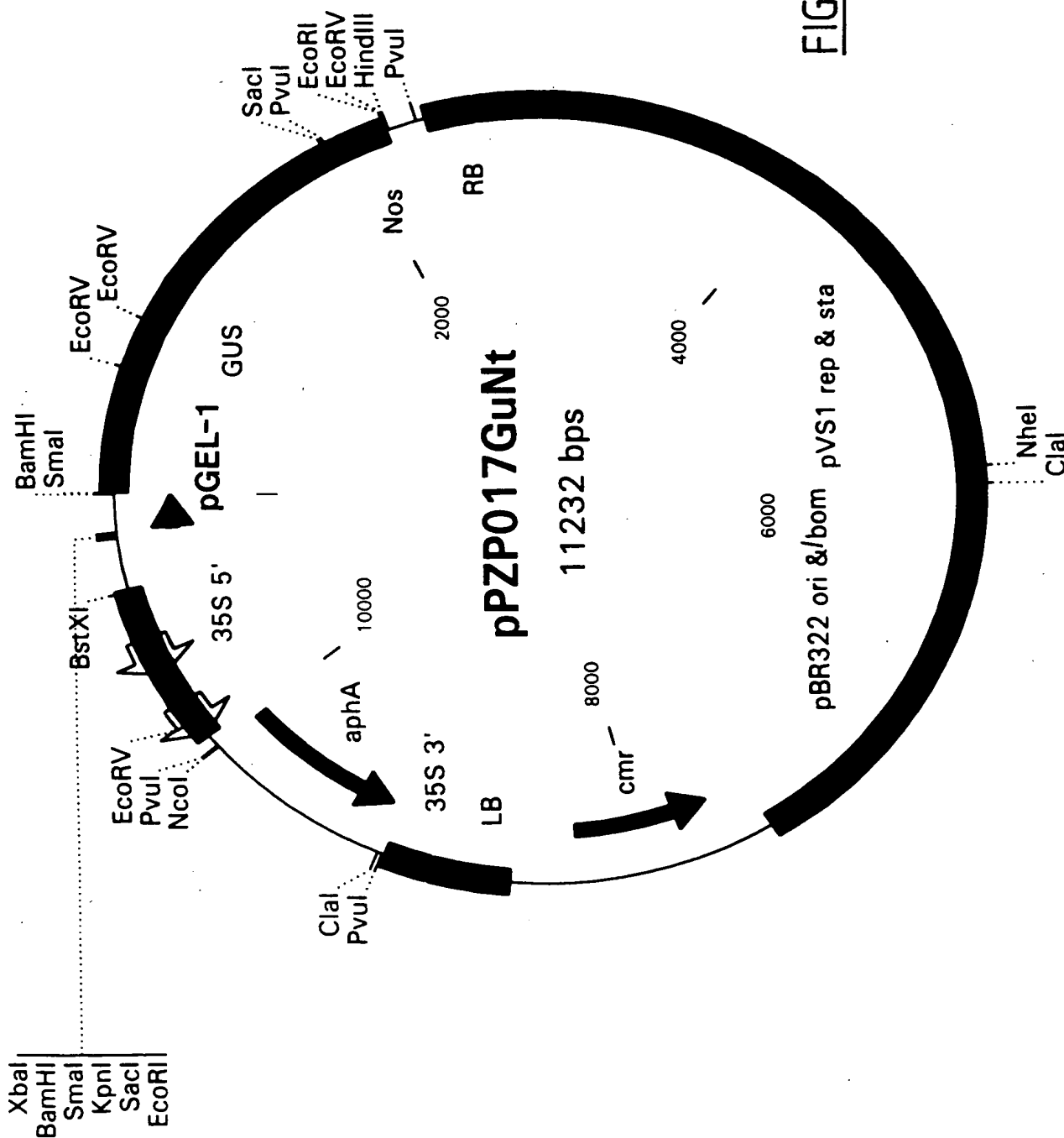
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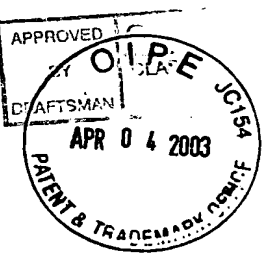
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FIGURE 6A(vii)





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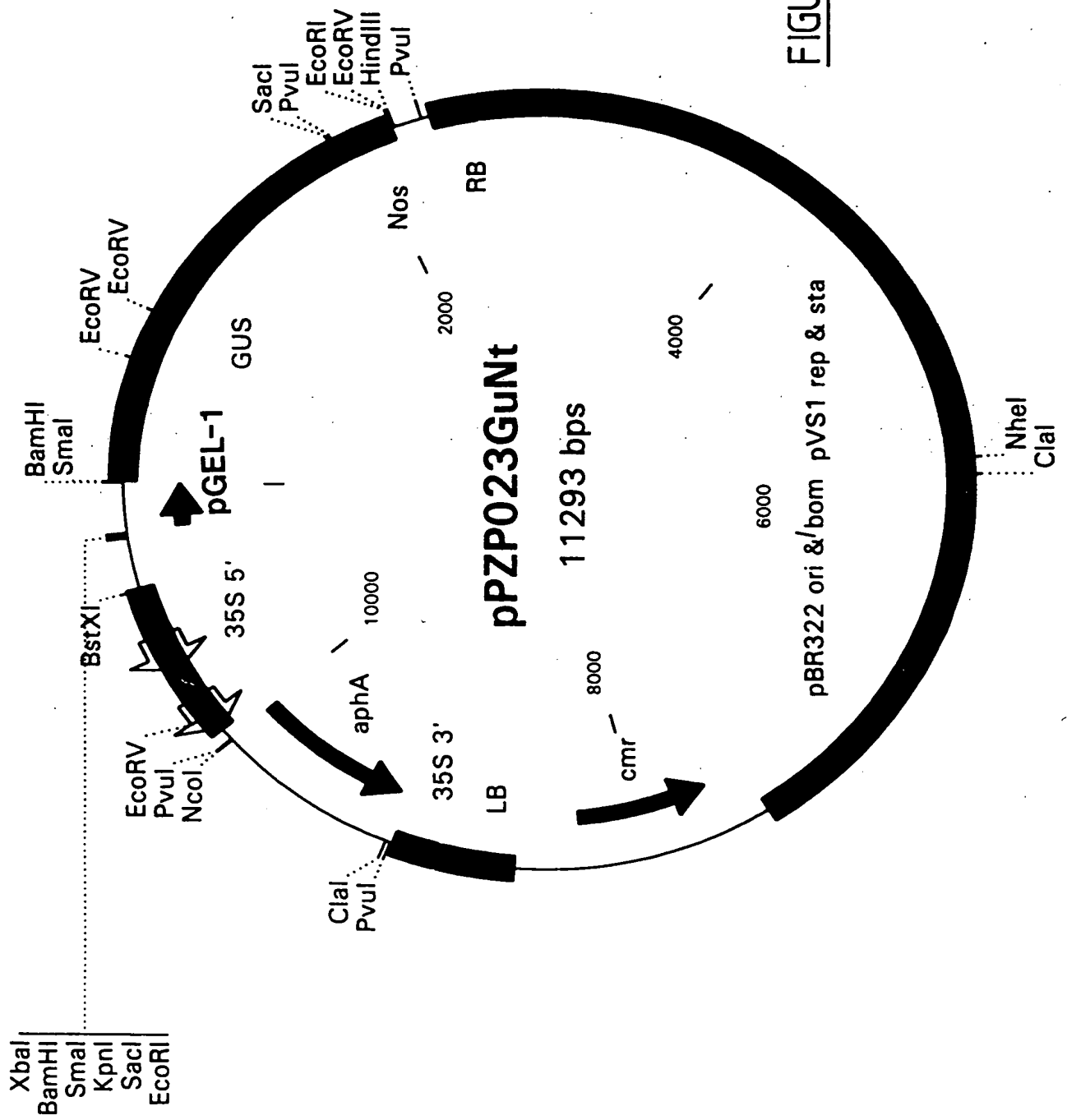
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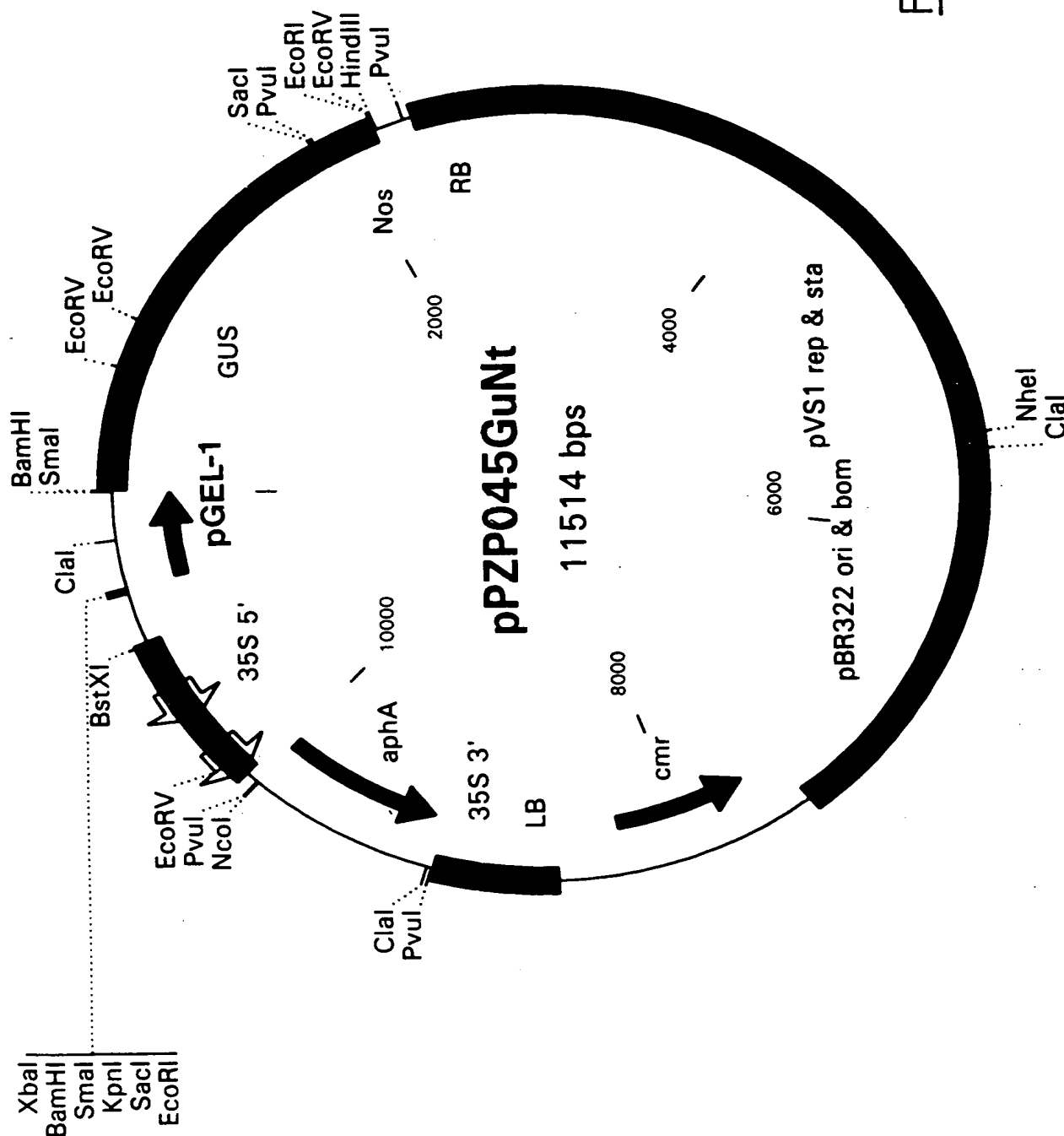
FIGURE 6A(viii)

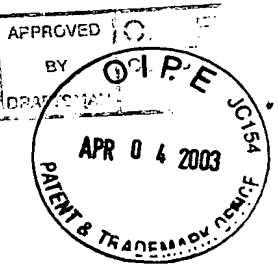


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FIGURE 6A(ix)





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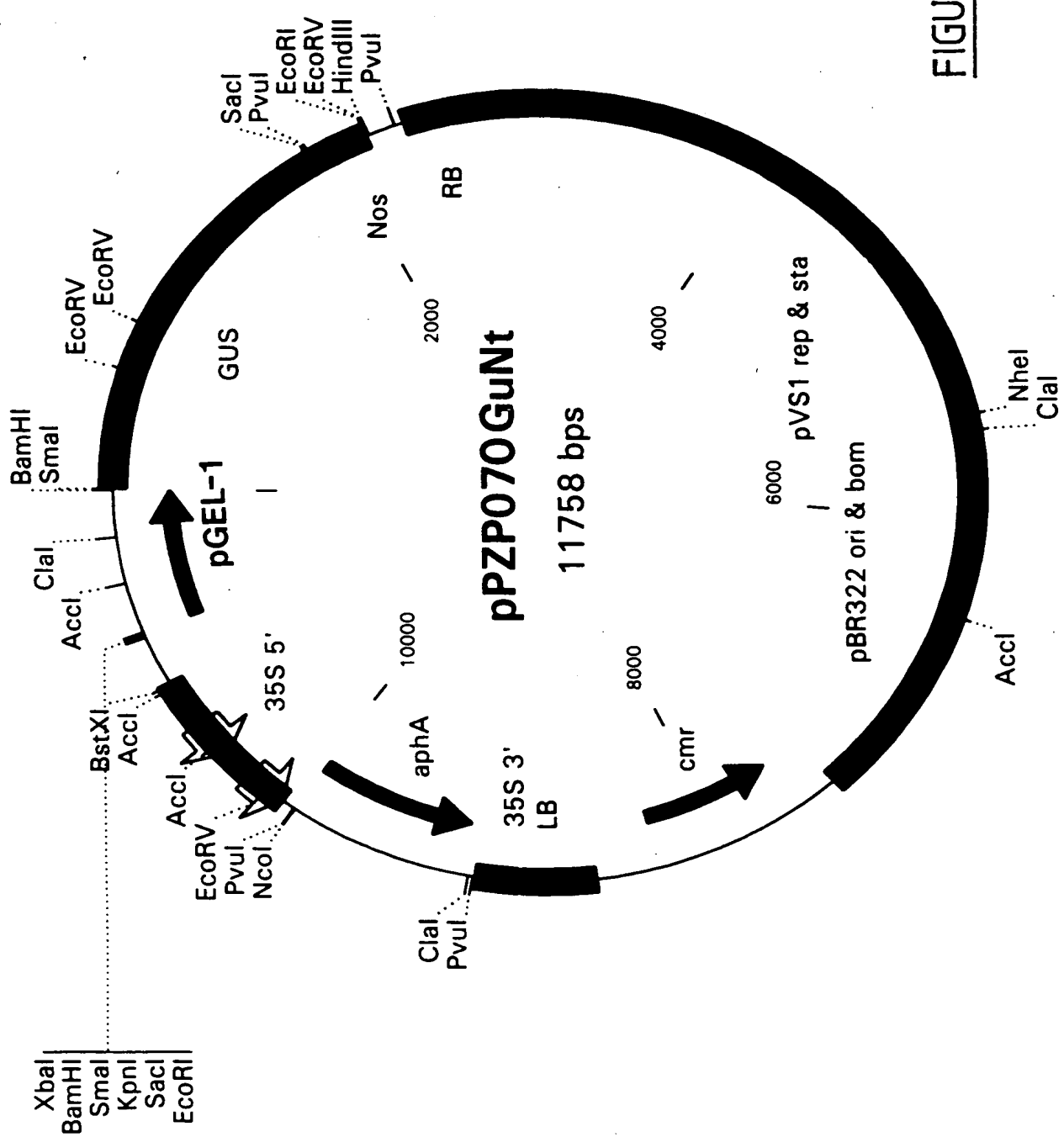
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FIGURE 6A(x)



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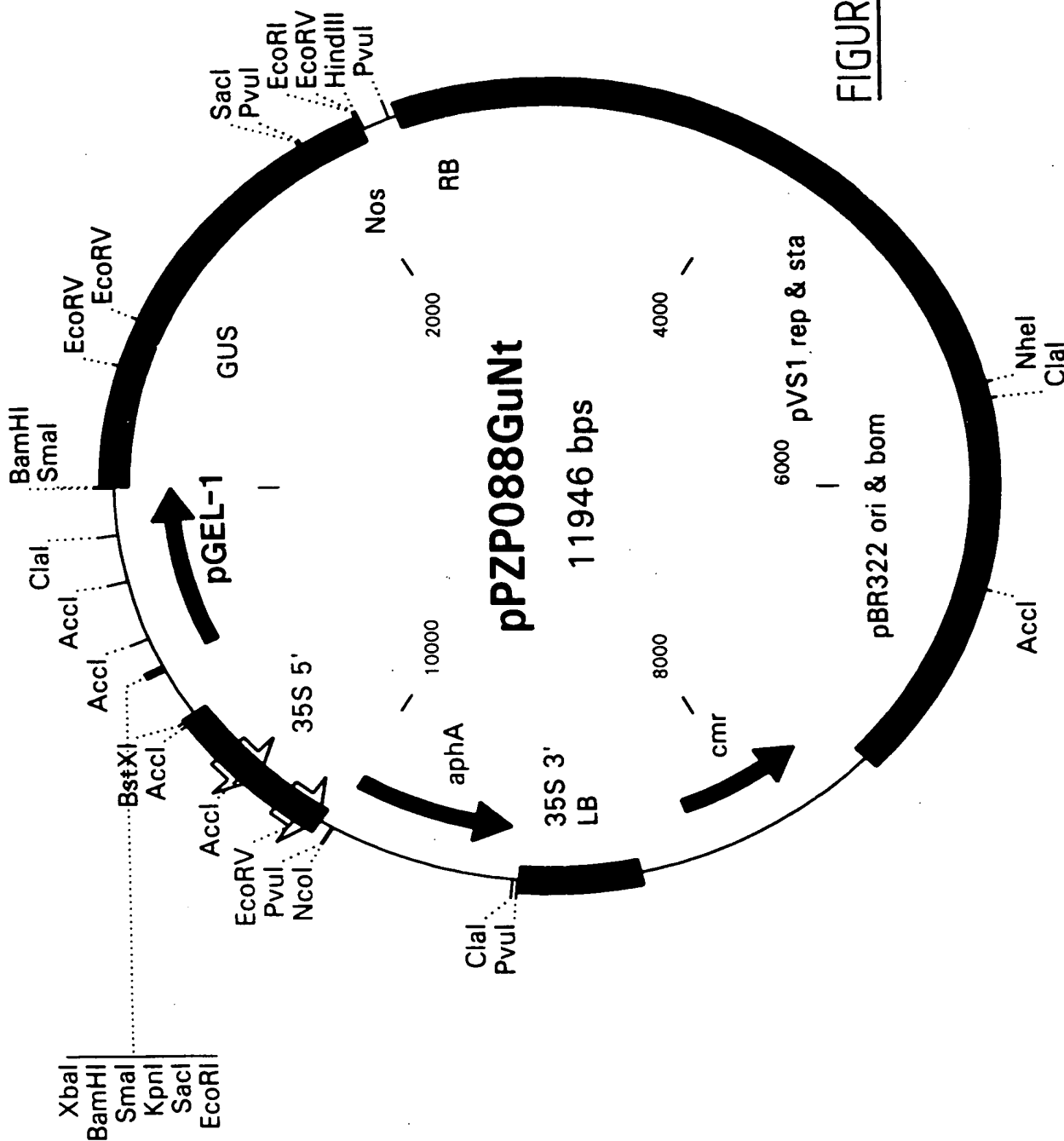
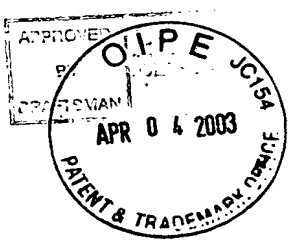


FIGURE 6A(xi)



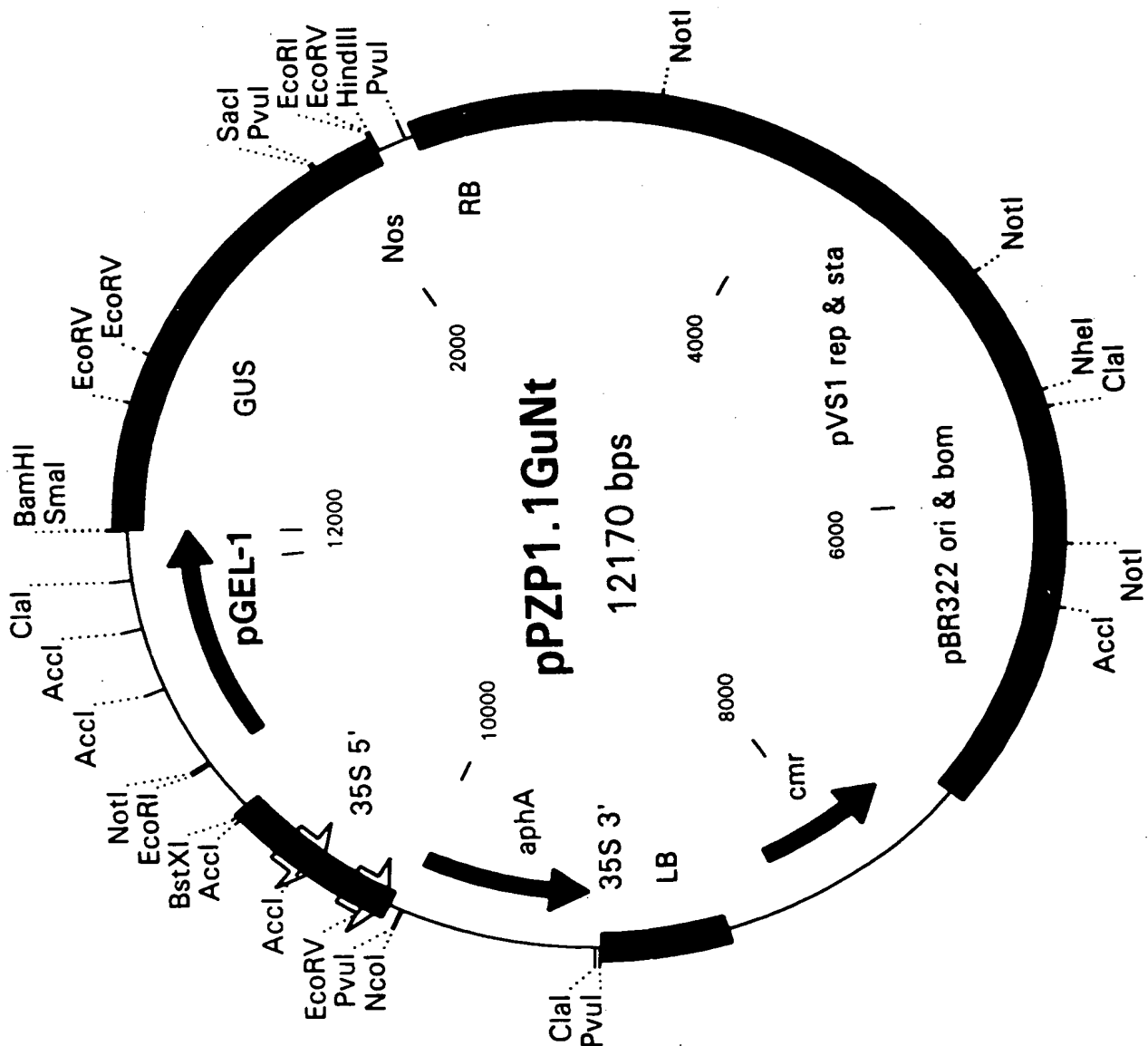
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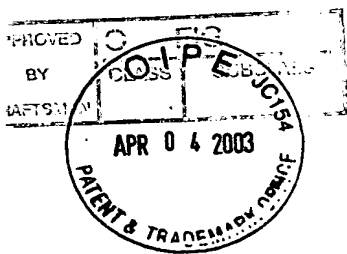
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FIGURE 6A(xii)





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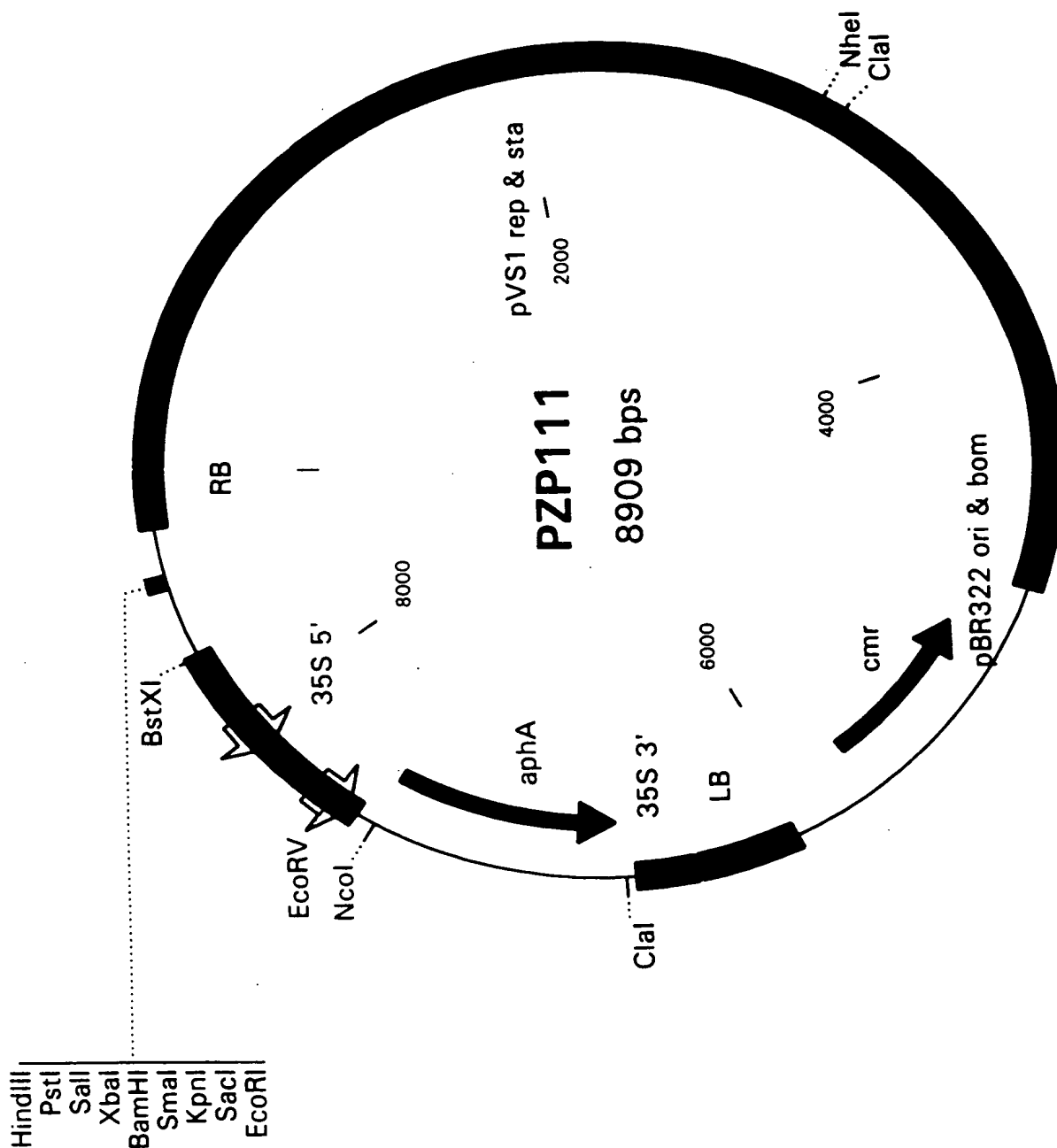
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FIGURE 6B





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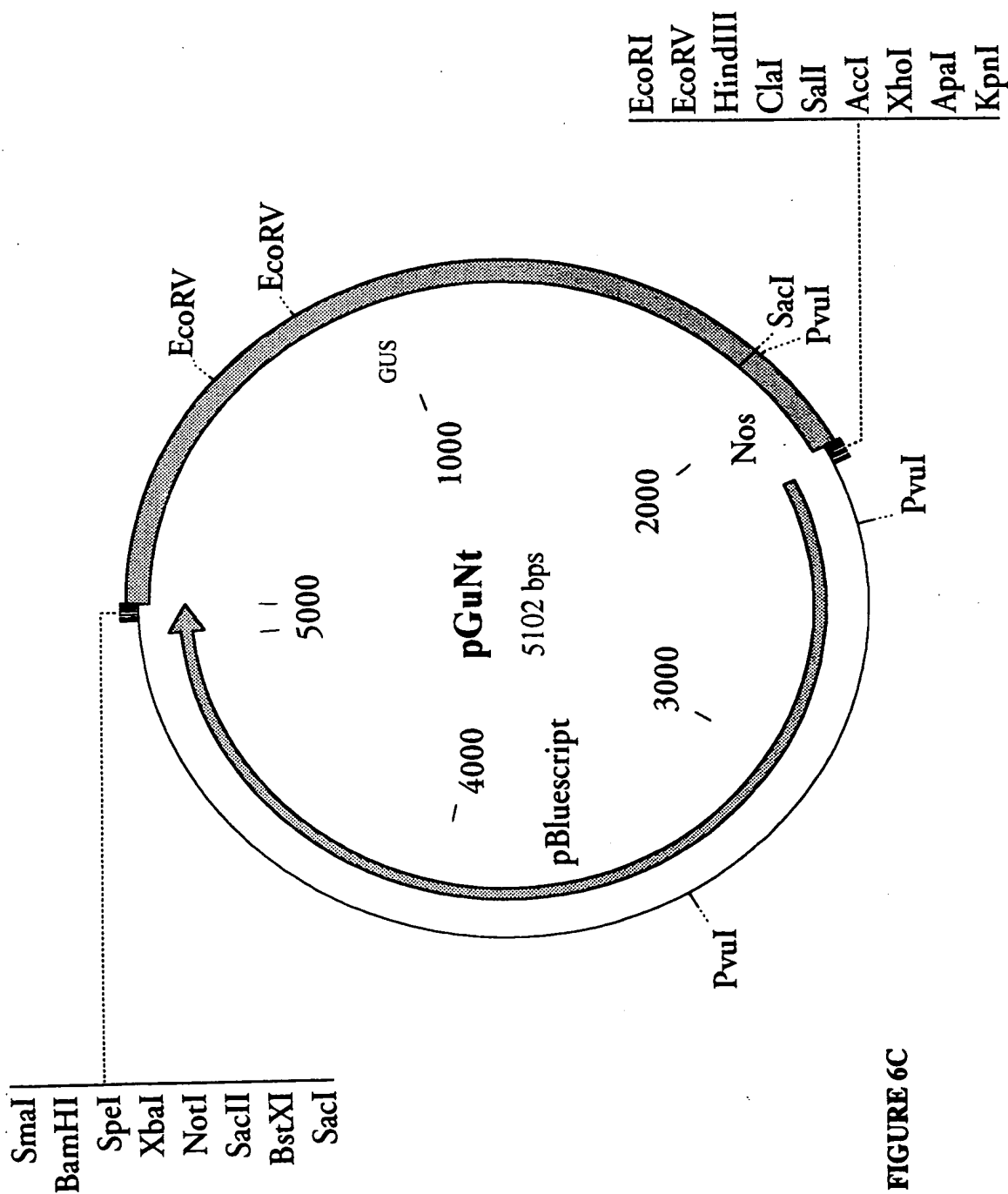


FIGURE 6C

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FIG. 1
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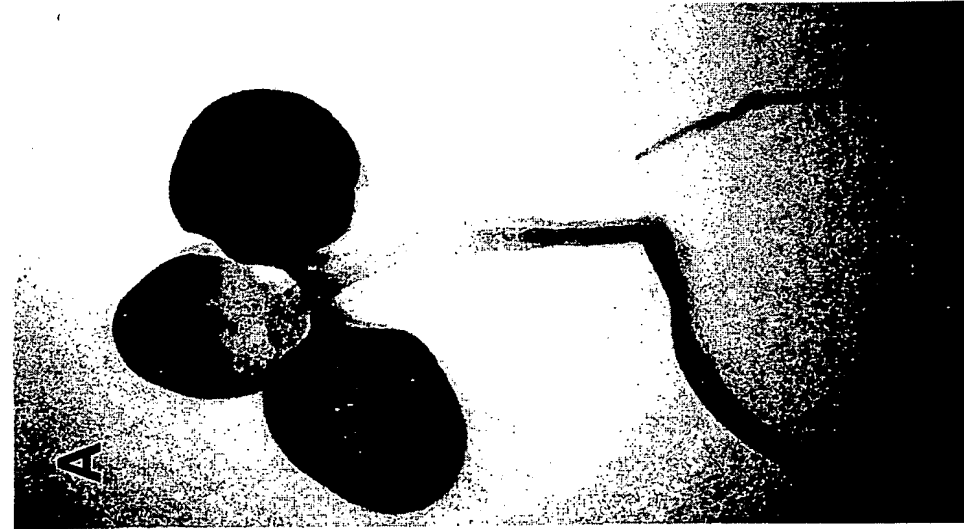
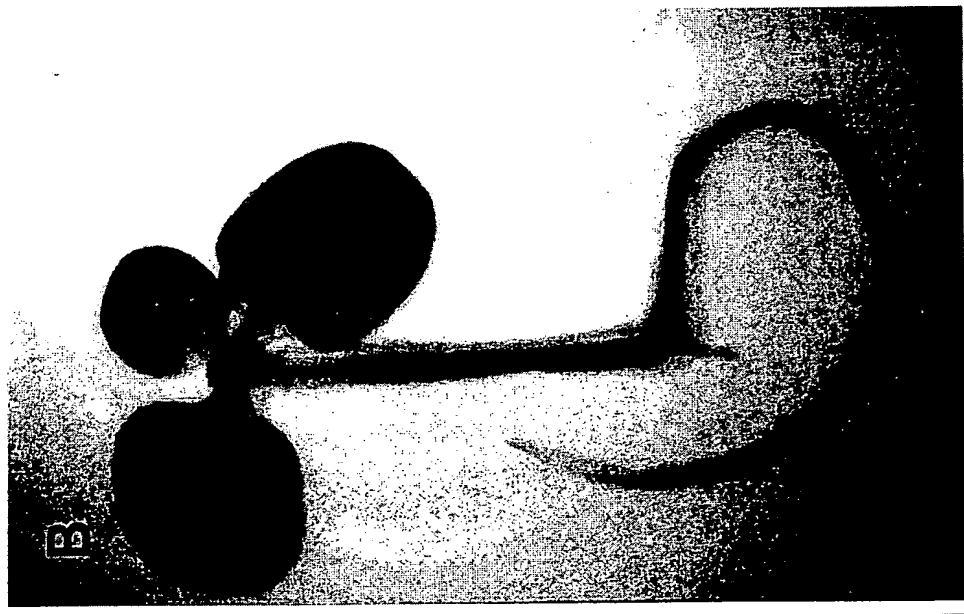
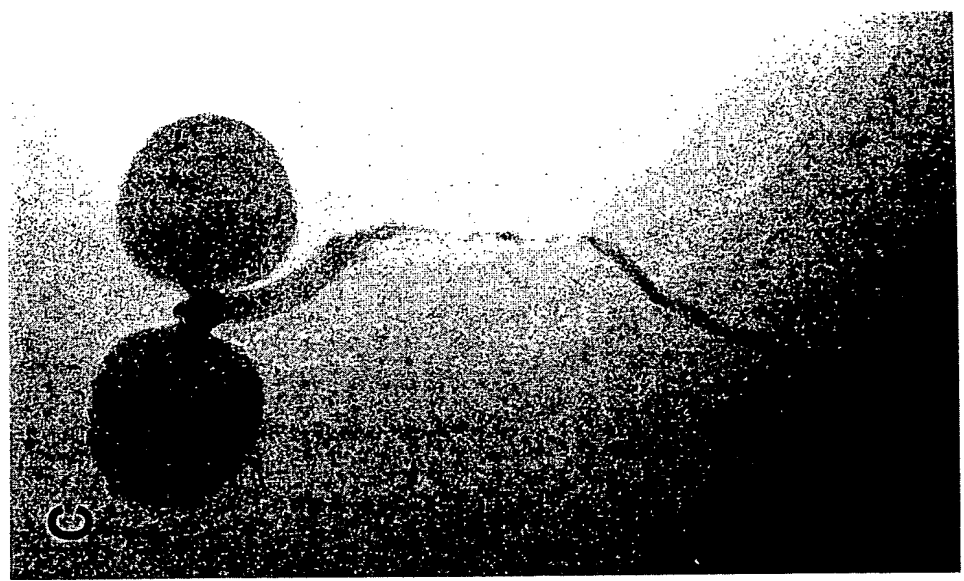
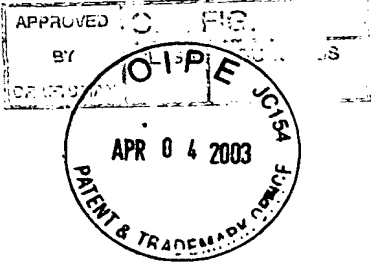


FIGURE 7



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FIGURE 8B

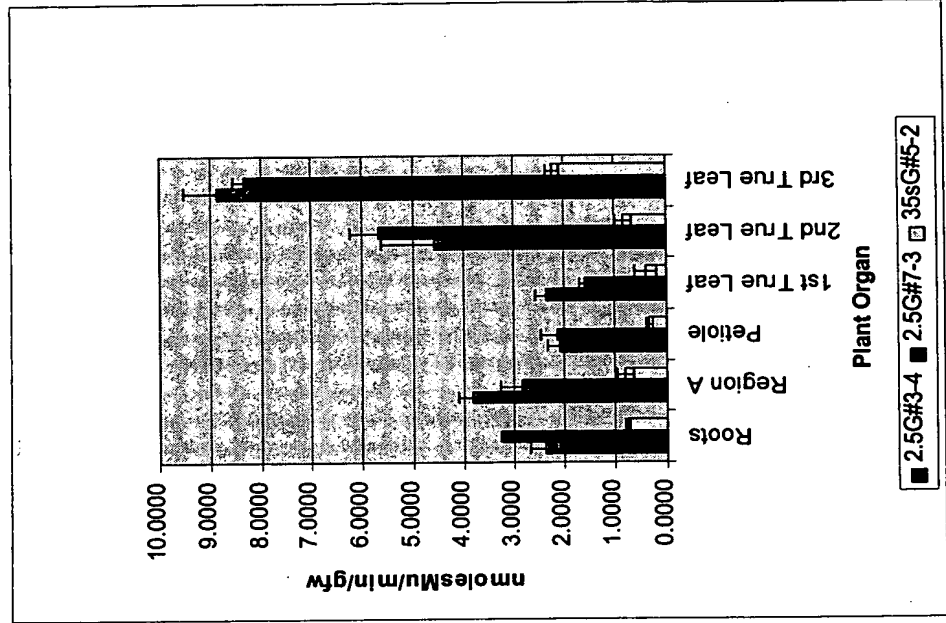
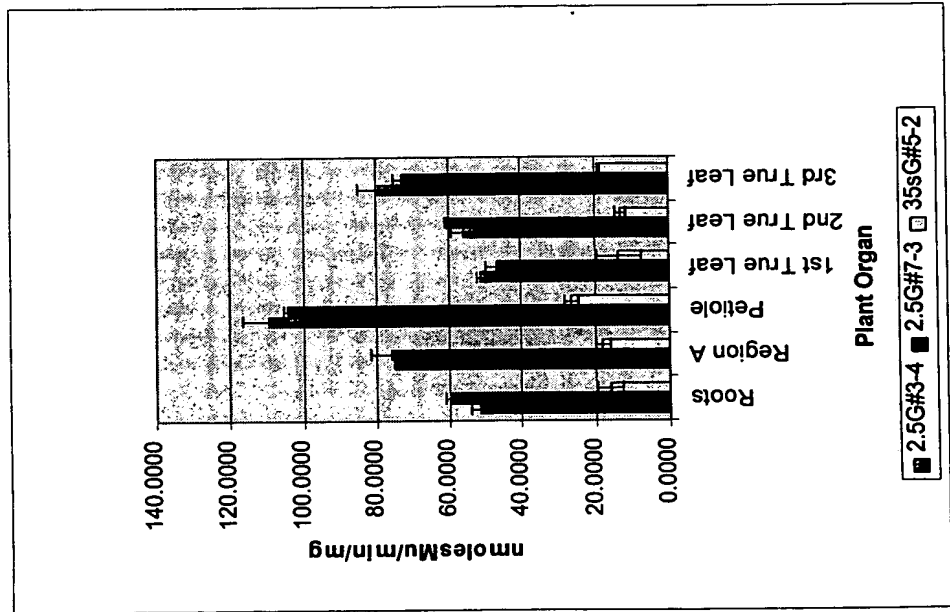
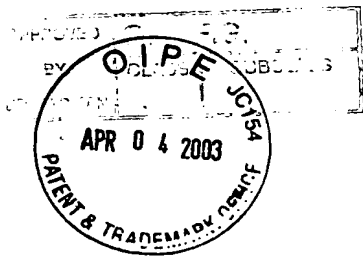


FIGURE 8A





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FIGURE 9B

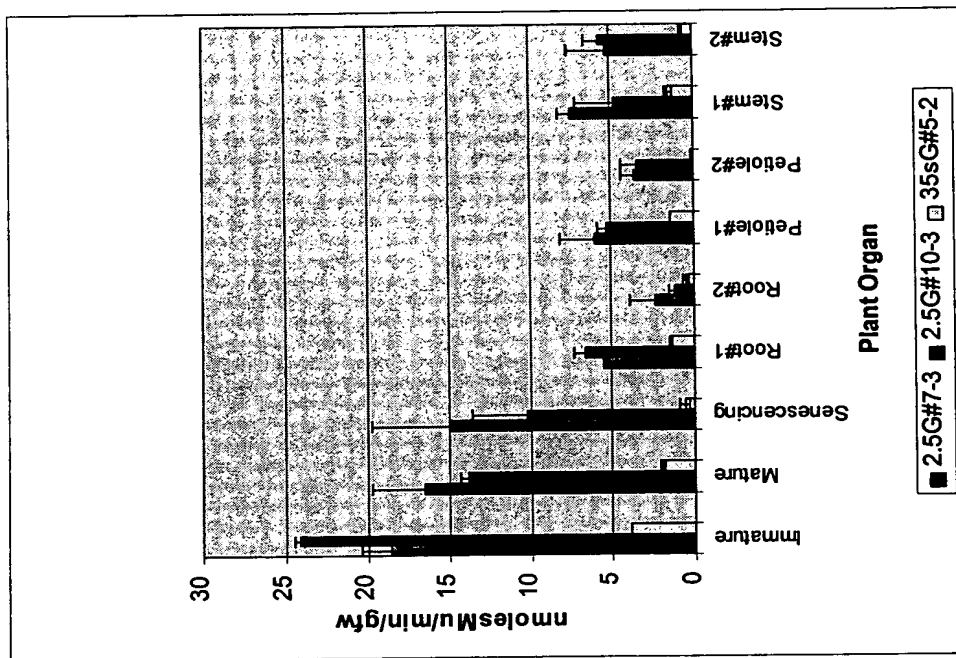
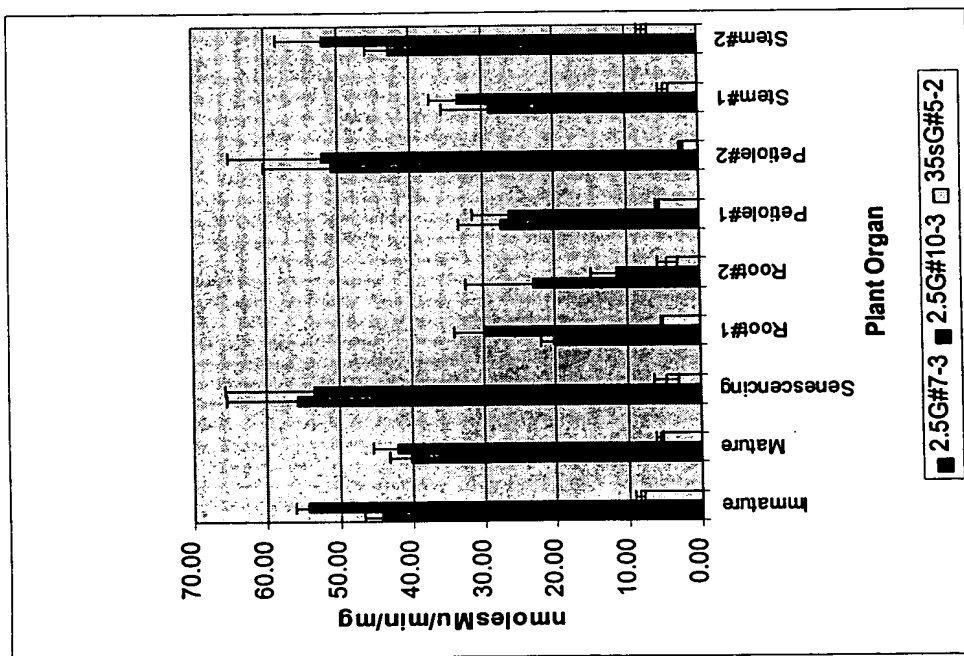
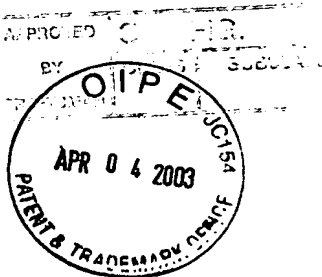


FIGURE 9A





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FIGURE 10B

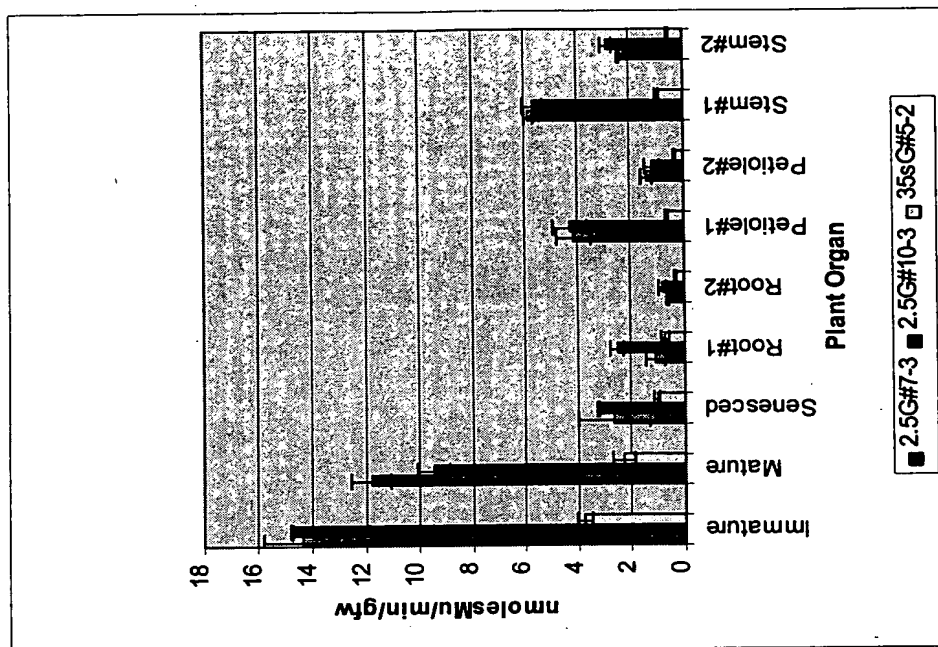
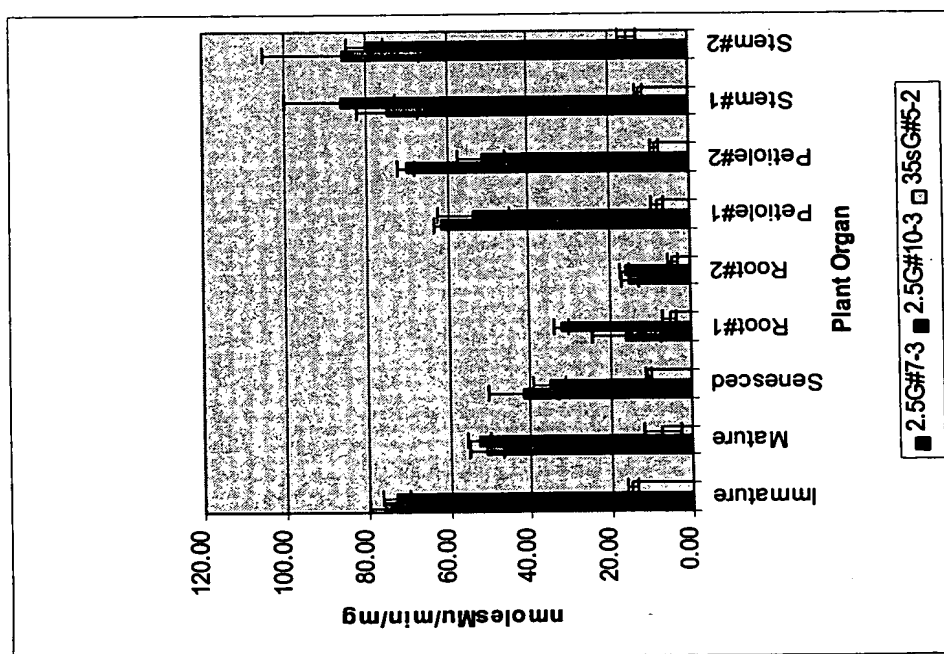


FIGURE 10A



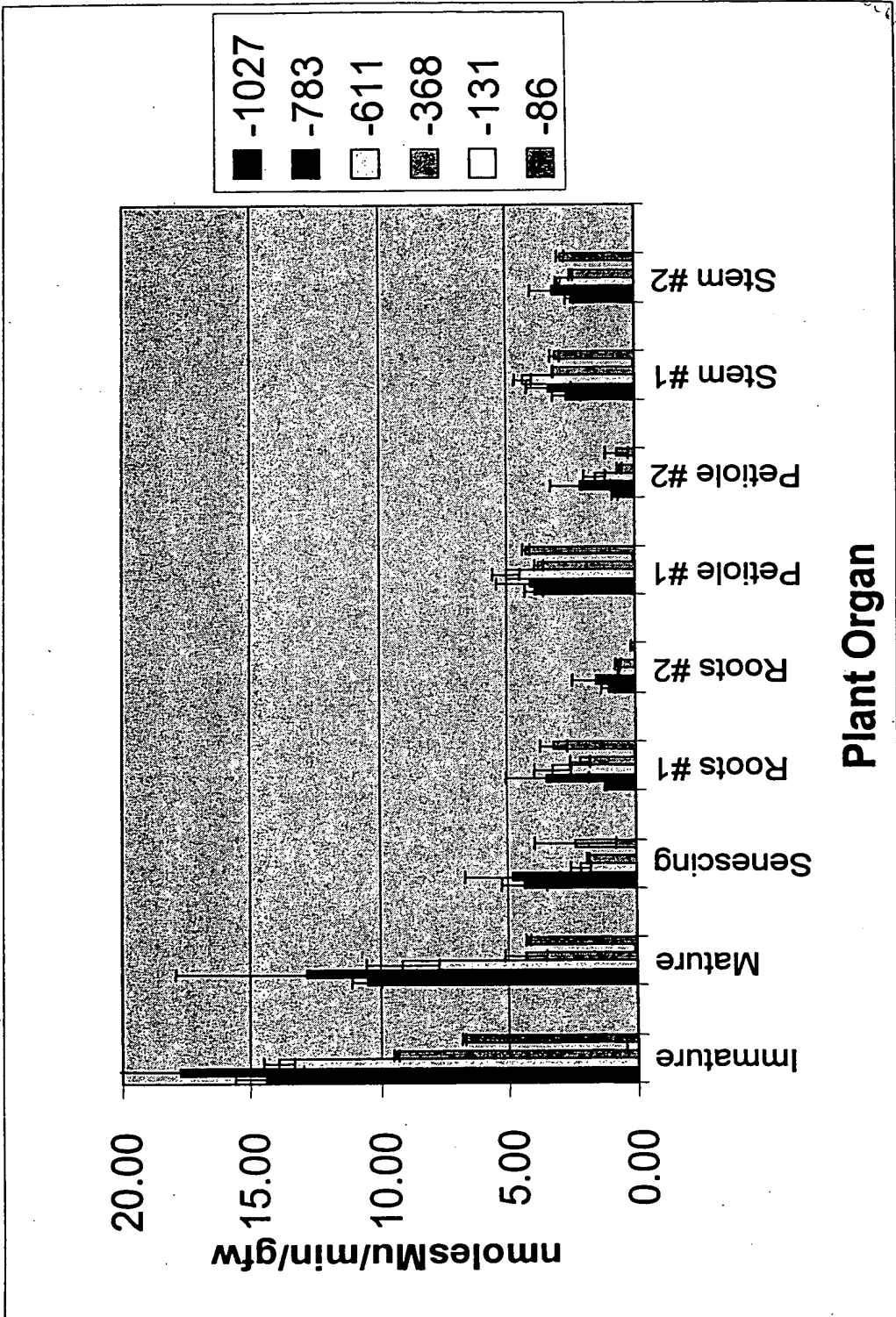
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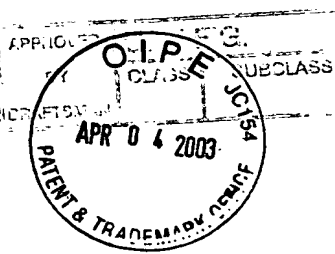
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FIGURE 11



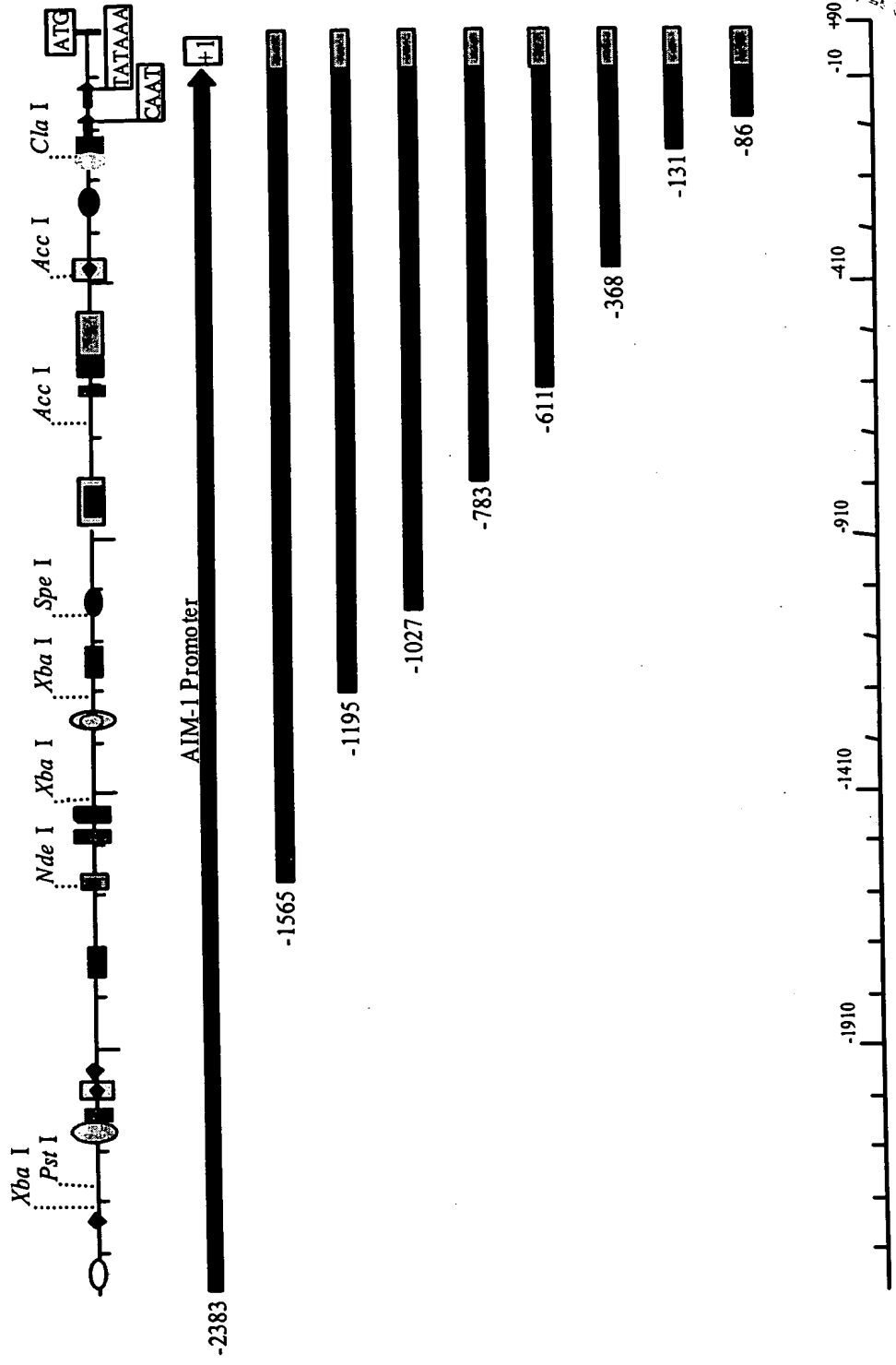


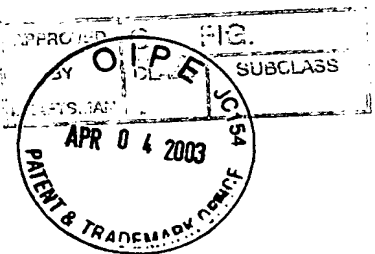
Serial No.: 09/763,957
Docket No.: 229752001300
Inventor: Jose Ramon Botella MESA et al.
Title: PLANT PROMOTER AND USES THEREFOR
(as amended)
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FIGURE 12





Serial No.: 09/763,957
Docket No.: 229752001300
Inventor: Jose Ramon Botella MESA et al.
Title: A PLANT PROMOTER AND USES THEREFOR
(as amended)
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enzyme:		E	B	E	B	E	B	B

4.5kb

2.0kb

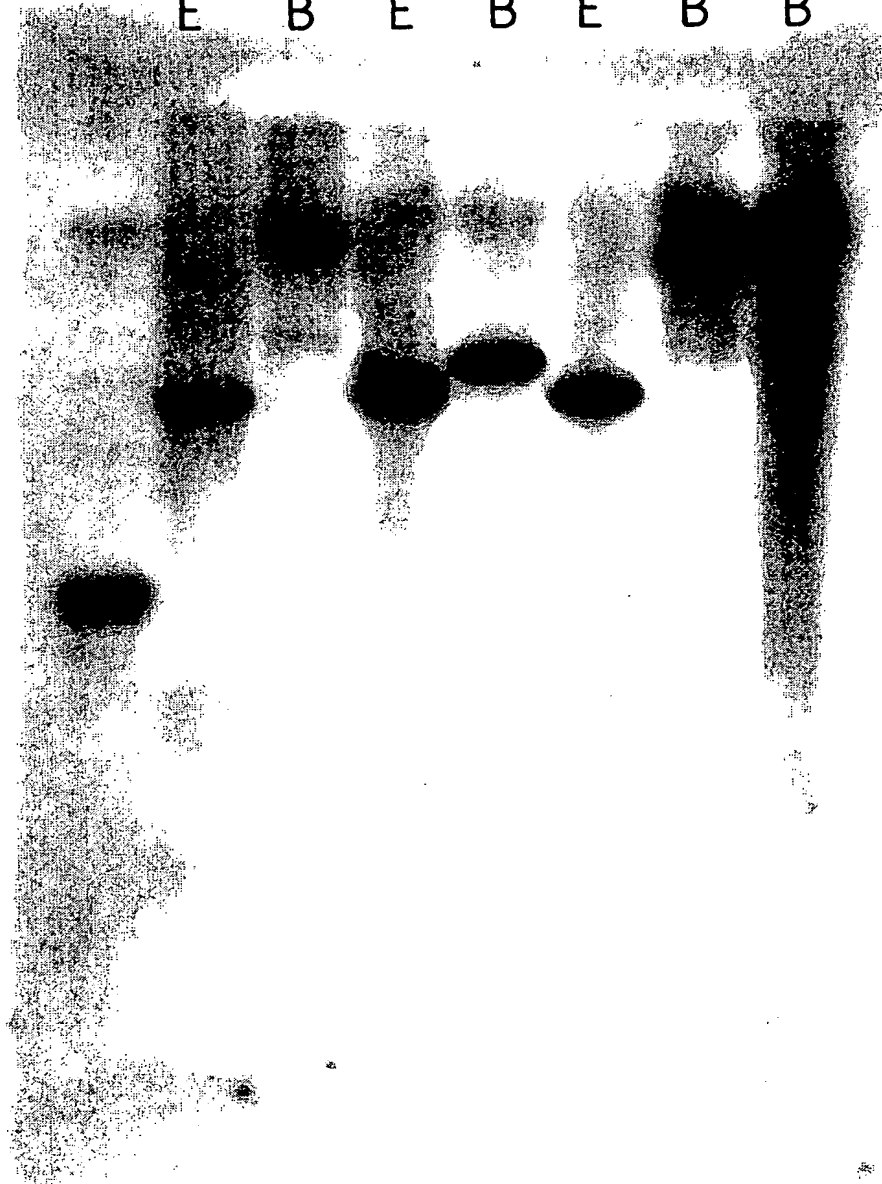


FIGURE 13